

February 12, 2009



U.S. Department  
of Transportation

East Building, PHH-30  
1200 New Jersey Avenue S.E.  
Washington, D.C. 20590

**Pipeline and Hazardous  
Materials Safety Administration**

DOT-SP 3121  
(NINETEENTH REVISION)

(FOR RENEWAL, SEE 49 CFR § 107.109)

1. GRANTEE: (See individual authorization letter)
2. PURPOSE AND LIMITATION:
  - a. This special permit authorizes the transportation in commerce of certain poisonous hazardous materials in DOT Specification MC 338 cargo tanks. This special permit provides no relief from the Hazardous Materials Regulations (HMR) other than as specifically stated herein. The most recent revision supersedes all previous revisions.
  - b. The safety analyses performed in development of this special permit only considered the hazards and risks associated with transportation in commerce.
  - c. Unless otherwise stated herein, this special permit consists of the special permit authorization letter issued to the grantee together with this document.
3. REGULATORY SYSTEM AFFECTED: 49 CFR Parts 106, 107 and 171-180.
4. REGULATIONS FROM WHICH EXEMPTED: 49 CFR §§ 172.101 (Column (8C)) in that MC 338 cargo tanks are not authorized for transportation, except as provided herein.
5. BASIS: This special permit is based on the Pipeline and Hazardous Materials Safety Administration's (PHMSA) editorial review under § 107.121 initiated on December 4, 2008.

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6. HAZARDOUS MATERIALS (49 CFR § 172.101):

Hazardous Material Description			
Proper Shipping Name	Hazard Class/ Division	Identification Number	Packing Group
Dinitrogen tetroxide	2.3	UN1067	Hazard Zone A

7. SAFETY CONTROL MEASURES:

a. PACKAGING - Packaging prescribed is a specially designed cargo tank motor vehicle designed and fabricated in accordance with DOT Specification MC 338 (§ 178.338) and as follows:

1. Each cargo tank motor vehicle must conform with the following engineering documents on file with the Office of Hazardous Materials Special Permits and Approvals (OHMSPA): Process Engineering, Inc. drawings B-27621, Rev 3, dated September 6, 1990; B-27626, Rev 1, dated September 13, 1990; C-33055, Rev 1, dated October 1, 1990; C-33066, Rev 1, dated October 2, 1990; and D-44365, Rev 3, dated October 2, 1990; and Process Engineering, Inc. product specification Model ST-27SN204, revision dated September 28, 1990.

2. The minimum design pressure for the cargo tank is 300 psig.

3. Cargo tanks must be constructed so as to achieve thermal conductance between the inner vessel and the atmosphere of not more than 0.08 Btu per square foot per degree Fahrenheit differential per hour, determined at 60F.

4. The sliding protective housing must be so designed as to present no flow restriction to vapor discharged from the pressure relief valve. The pressure relief system must communicate directly with the vapor space inside the manway cover. The isolation valve between the pressure relief valve and the vapor space must be locked in the open position except during maintenance operations on the pressure relief valve.

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5. Outlet and inlet valves must be closed by use of blank flanges or pipe caps so as to be gas tight at all times while the cargo tank is in transit on public highways.

6. An emergency closure kit must be provided to control leaks in fittings on the dome cover plate. At a minimum, this kit must be equivalent to the requirements of § 178.337-10(d).

b. TESTING - Each tank must be reinspected and retested in accordance with § 180.407 as required for DOT Specification MC-338 cargo tanks. Test pressure must be one and one-quarter times the maximum allowable working pressure (MAWP). Pneumatic retesting using nonflammable gas (e.g., nitrogen or helium) is authorized.

c. OPERATIONAL CONTROLS -

1. The motor carrier must equip each unit with a fire retardant blanket, which must be readily available for use in protecting the cargo tank from heat in event of a tire fire.

2. Outage and filling must be in accordance with § 173.24b.

3. Prior to and after each loading and unloading operation, each cargo tank must be subjected to inspection checklists DESC-MIP No. 3 and 4. The inspection checklist must be retained at the inspection facility for at least two (2) years.

4. Cargo tank vehicles while loaded, and where feasible, must not be parked, even though attended, on any public roadway, or within 500 feet of any bridge, tunnel, dwelling, building, or place where persons work, congregate, or assemble.

5. Two drivers, meeting the qualifications described below, must be assigned to each cargo tank motor vehicle. Shipments must be transported from origin to destination without lay-over en route, except for necessary rest stops of short duration. The vehicle must be attended at all times by a driver, or other responsible and qualified representative of the motor carrier, shipper, or of the Department of Defense.

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Drivers and other attendants accompanying each shipment must be informed of the characteristics of the material being transported and of its inherent dangers, and must be fully instructed in the measures and procedures to be followed to protect the public from these dangers in the event of accident or emergency, using the training manual "Dinitrogen Tetroxide Trailer Driver's Training", published and maintained by the Materiel Support Branch, Transportation Office (DESC-MIP). Additionally, drivers must meet and are subject to all requirements of 49 Code of Federal Regulations (CFR) 383, 391 and 392. Further, they must meet the following requirements:

(i) Age - Not less than 25 years old.

(ii) Experience

(a) Three years driving experience in the transport of hazardous materials classified Poisonous or Poison Inhalation Hazard; this experience may be obtained with one company, or with several companies.

(b) Five years experience driving semi-trailer vehicles.

(c) Two years experience driving semi-trailer cargo tank motor vehicles.

(d) Driver must permit the release of and carriers must submit driver's name, social security number, date of birth, license number(s) and other necessary information to an agency (including state license bureau's) or driver's license registry service.

6. Carrier must maintain a safety rating, as assigned by the Federal Motor Carrier Safety Administration (FMCSA) of "Satisfactory", this must be pursuant to the procedures specified in 49 CFR Part 385.

7. The motor carrier must furnish to drivers of each cargo tank motor vehicle written instructions, showing the route to be taken from point of origin to destination, which must be planned insofar as practicable so as to avoid congested thoroughfares,

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street car tracks, tunnels, viaducts, dangerous crossings and places where crowds assemble. Such instructions must designate the places where stops are to be made for fuel and meals, as well as the procedure to be followed to assure that the cargo tank motor vehicle is attended at all times until delivery to the consignee is accomplished.

8. The Department of Defense must have an operational emergency response plan for dinitrogen tetroxide highway transportation routes. This emergency response plan must be fully in accordance with the "Highway Emergency Response Plan" dated September 20, 2005, promulgated by the Defense Energy Support Center, Aerospace Energy Commodity Business Unit, Lackland AFB, TX 78236-9828. This plan must include orientation training, mitigation, demonstration, static display, tabletop exercises and notification tests set forth in Section G, of the emergency response plan. The tabletop exercise must be conducted every four years. A copy of the exercise results and evaluation must be submitted to the OHSPA within 45 days of exercise completion and prior to the next renewal of the special permit.

9. The designated routes must be reviewed periodically. The renewal application must contain a certification that the designated routes have been reviewed and remain the safest practicable route, taking into account as a minimum the criteria specified in 49 CFR § 397.

8. SPECIAL PROVISIONS:

a. A person who is not a holder of this special permit who receives a package covered by this special permit may reoffer it for transportation provided no modifications or changes are made to the package and it is reoffered for transportation in conformance with this special permit and the HMR.

b. Each tank must be plainly placarded in accordance with 49 CFR Part 172, Subpart F and marked "INHALATION HAZARD" and "OXIDIZER" in accordance with Part 172, Subpart D. In addition, each tank must be marked "DOT-SP 3121" on the right side near the front, in letters at least two inches high on a contrasting background.

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9. MODES OF TRANSPORTATION AUTHORIZED: Motor vehicle.
10. MODAL REQUIREMENTS: A current copy of this special permit must be carried aboard each motor vehicle used to transport packages covered by this special permit.
11. COMPLIANCE: Failure by a person to comply with any of the following may result in suspension or revocation of this special permit and penalties prescribed by the Federal hazardous materials transportation law, 49 U.S.C. 5101 et seq:
- o All terms and conditions prescribed in this special permit and the Hazardous Materials Regulations, 49 CFR Parts 171-180.
  - o Persons operating under the terms of this special permit must comply with the security plan requirement in Subpart I of Part 172 of the HMR, when applicable.
  - o Registration required by § 107.601 et seq., when applicable.

Each "Hazmat employee", as defined in § 171.8, who performs a function subject to this special permit must receive training on the requirements and conditions of this special permit in addition to the training required by §§ 172.700 through 172.704.

No person may use or apply this special permit, including display of its number, when this special permit has expired or is otherwise no longer in effect.

Under Title VII of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU)- 'The Hazardous Materials Safety and Security Reauthorization Act of 2005' (Pub. L. 109-59), 119 Stat. 1144 (August 10, 2005), amended the Federal hazardous materials transportation law by changing the term "exemption" to "special permit" and authorizes a special permit to be granted up to two years for new special permits and up to four years for renewals.

12. REPORTING REQUIREMENTS: Shipments or operations conducted under this special permit are subject to the Hazardous Materials Incident Reporting requirements specified in 49 CFR 171.15 - Immediate notice of certain hazardous materials incidents, and 171.16 - Detailed hazardous materials incident reports. In addition, the grantee(s) of this special permit must notify the Associate Administrator for Hazardous Materials Safety, in writing, of any incident involving a package, shipment or operation conducted under terms of this special permit.

Issued in Washington, D.C.:



for Theodore L. Willke  
Associate Administrator for Hazardous Materials Safety

Address all inquiries to: Associate Administrator for Hazardous Materials Safety, Pipeline and Hazardous Materials Safety Administration, Department of Transportation, Washington, D.C. 20590. Attention: PHH-31.

Copies of this special permit may be obtained by accessing the Hazardous Materials Safety Homepage at [http://hazmat.dot.gov/sp\\_app/special\\_permits/spec\\_perm\\_index.htm](http://hazmat.dot.gov/sp_app/special_permits/spec_perm_index.htm) Photo reproductions and legible reductions of this special permit are permitted. Any alteration of this special permit is prohibited.

PO: KFW/AM